

# ECON204 Notes

## Introduction

### **Response to the GFC Crisis**

#### Monetary policy

- Cut interest rates
- Quantitative easing

#### Fiscal policy

- Governments spent and borrowed a lot
- Fiscal deficits funded by debt
- Many have worried about too much government debt. This has slowed the global recovery

### **The global recovery - 2017**

- Financial market volatility
- China's credit fears
- Low inflation and possible deflation
- Geopolitical problems - Brexit, Syria and North Korea

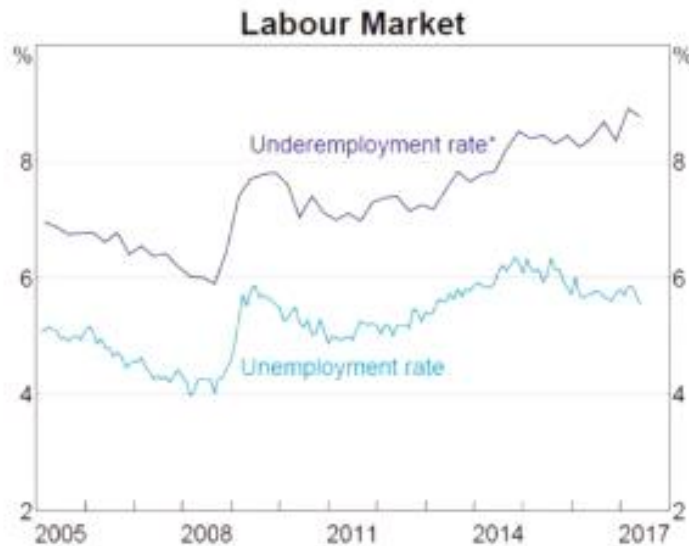
## Australia

### **How Australia prevented a recession**

1. Mining boom
  - Rising commodity prices
  - Fourfold increase from 2000-2011
2. Large fiscal deficits in response to the GFC
3. Large monetary policy response
  - Sharp decrease in interest rates
  - Real cash rate is negative

### **4 issues for Australia**

1. How to respond to slow world growth
  - Trading partner growth remains flat
  - Will China slow down?
  - Why are global rates so low?
2. Wage growth and productivity slowing
  - Why is wage growth falling?
  - Productivity improvements are essential to kick start the non-mining economy
  - High underemployment



3. How to manage mining boom/bust
  - The boom was great for exports
  - Now commodity prices have fallen and the mining/agricultural states are weakening (WA and QLD)
  
4. Strengthening exchange rate
  - Strong exchange rate is bad for exporters
  - Imports are cheap
  - If RBA raises rates, exchange rate will get even stronger

## United States

### Response to the GFC

- Quantitative easing. This has now been halted
- Interest rates decreased to near zero

- Interest rates at 1% now
- Improved regulation in the financial industry
- Trump has brought in fiscal stimulus plans but are yet to be enacted

### **US fiscal deficit**

- Government debt/GDP = 106% (is this too high?)
- High stimulus spending counteracts the fall in private demand

### **European Union**

#### **Recent performance**

- Poor output growth
- High unemployment

#### **Key issues**

1. High unemployment
  - Restricted labour market
2. Common currency
  - Weak countries want a depreciation
  - Strong countries want an appreciation
3. Large flow of refugees
  - How can they be managed?
4. Brexit
  - Will others leave too?

#### **Multiplier**

- How much equilibrium GDP increases for each additional dollar of exogenous spending

### **China**

#### **Sources of growth**

- Accumulating capital (plant, housing, machinery, roads). Large investment but small consumption
- Fast technological progress from foreign investment
- Entry to WTO in 2001 led to greater exports
- Rapid urbanisation and industrialisation

#### **China today**

- Growth is slowing
- Investment is slowing rapidly
- Consumption is constantly low
- Ageing society - one child policy
- Growing debt problems - asset price bubble?

# The IS-LM Model (Short Run)

## **Aggregate output**

- National income and product accounts - accounting system used to measure aggregate economic activity
- The measure of aggregate output in the national income accounts is GDP
- GDP is total value of final good (good used for consumption)

## **Three ways of defining GDP**

1. Value of final goods
2. Value added - value of firms production less immediate goods
3. Sum of the incomes (wages + profit)

## **Nominal and Real GDP**

### Nominal GDP

- Sum of quantities of final goods multiplied by current price

### Real GDP

- Sum of the quantities at a constant price
- Nominal GDP/Price level = Real GDP
- The base year impacts the result

### GDP Growth

$$\frac{(Y_t - Y_{t-1})}{Y_{t-1}}$$

Positive growth = expansion

Negative growth = recession (2 or more consecutive quarters)

## **Unemployment rate**

- Labour force = employed + unemployed
- Unemployment rate = unemployed / labour force
- Participation rate = labour force / population of working age

## **Inflation**

- Inflation - sustained increase in price level
- Inflation rate - rate at which price level increases
- Deflation - negative inflation rate

## **The GDP deflator**

- GDP deflator is an index number set to 100 in the base year
- The rate of change in the deflator equals the rate of inflation
- Nominal GDP = GDP deflator \* Real GDP

## Consumer Price Index

- Measures cost of living

## Why do we care about inflation

- It affects relative prices (real wage) and thus income distribution
- Inflation can affect taxes through bracket creep
- Changes in relative pricing create uncertainty and affect decision making

## Output, unemployment and the inflation rate

### Okun's Law

- Negative relationship between output growth and unemployment

### Phillips Curve

- Change in the inflation rate is negatively related to the unemployment rate

## A successful economy

- Combination of high output, low unemployment and low inflation
- Is it possible to achieve these all simultaneously? Usually we can only achieve 2 out of 3

## Output

Output is determined by:

- Demand in the short-run
- Level of tech, capital stock and labour force in the medium run
- Education, research, saving and quality of government in the long run

## Australian GDP 2011

	Chain volume measures	Billions of dollars	Per cent of GDP
GDP (Y)		1335	100
1 Consumption (C)		747	56.0
2 Investment (I)		314	23.5
	Nonresidential	243	18.2
	Residential	71	5.3
3 Government spending (G)		321	24.1
4 Net exports		-49	-3.7
	Exports (X)	255	19.1
	Imports (IM)	-304	-22.8
5 Inventory investment		4	0.3

SOURCE: RBA, Bulletin Table G11. © Reserve Bank of Australia, 2001–10. All rights reserved.

## Trade

- Trade balance - exports = imports
- Trade surplus - exports > imports
- Trade deficit - exports < imports

## Demand for goods

$$Z = C + I + G + NX$$

## Consumption

$$C = C(Y_D)$$

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- The function  $C(Y_D)$  is called the **consumption function**. It is a **behavioural equation**, that is, it captures the behaviour of consumers.

Disposable income - income after tax and government transfer payments received

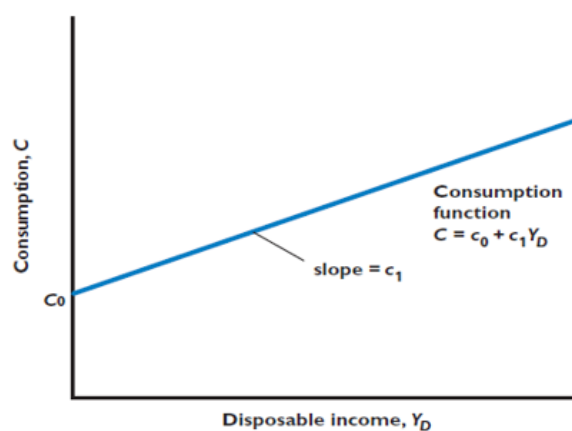
### Consumption and Disposable Income

Consumption increases with disposable income, but less than one for one.

$$C = C(Y_D)$$

$$Y_D \equiv Y - T$$

$$C = c_0 + c_1(Y - T)$$



What might  $c_0$  represent ?

### Investment (I) and Fiscal Policy (G, T)

- We will assume investment, government spending and taxes are exogenous (do not depend on income)

### The determination of equilibrium output

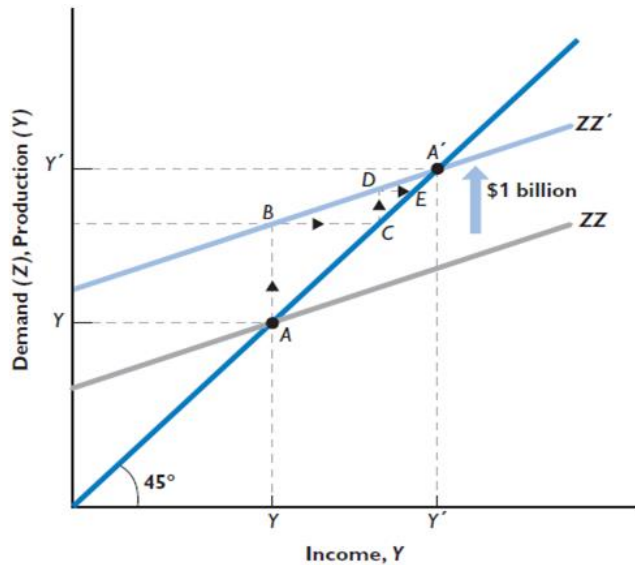
$$Y \text{ (output)} = Z \text{ (demand)}$$

- When marginal propensity to consume increases, Y increases

### Multiplier

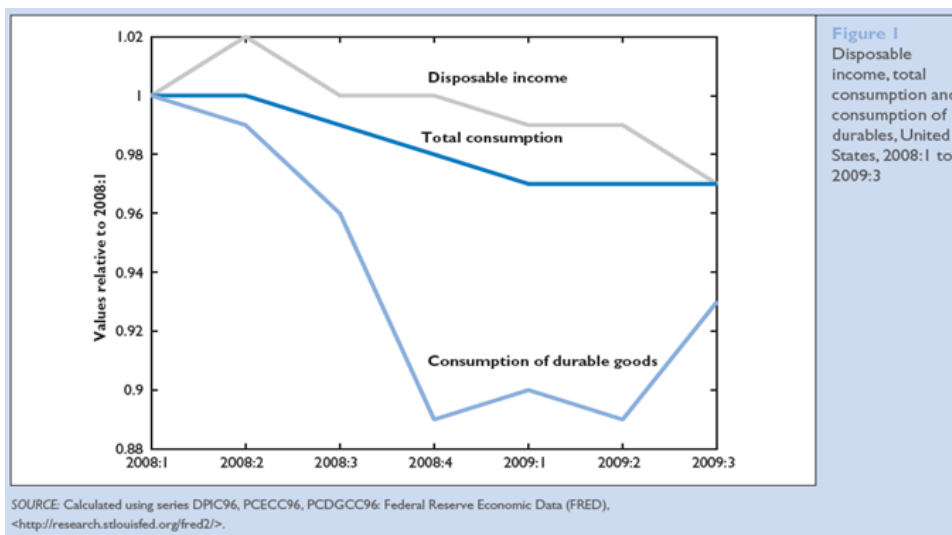
- Impact of exogenous variables on output
- Is impacted by the marginal propensity to consume

Using a graph



- The change in Y is greater than the change in G (when G increases by \$1 million)
- The 45 degree line is the supply side

### US consumer confidence in 2008



### Investment = saving

- In a closed economy, saving = investment
- National saving = Public saving (T-G) + Private saving (S)
- The equilibrium condition for the goods market is called the IS relation
- In a closed economy you can only invest through savings, hence why investment = savings
- When people save more, we have less output

### Is the government omnipotent? A warning

- Achieving high output may lead to high inflation
- It takes time to pass laws on taxation and government spending
- Consumer expectations are a big factor